

REMARKS

The present amendment and remarks are in response to the Final Office Action entered in the above identified case and mailed on October 22, 2009. Claims 1, 5-41, 43, 44, 47, 48, 51-53 and 70-76 are pending in the application. Claim 39 was rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1, 5-41, 43-44, 47-48, 51-53, and 70-76 were rejected under 35 U.S.C. §101 as being directed toward non-statutory subject matter. Finally, claims 39-41, and 72 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,901,351 to Daw et al. (hereafter “Daw”), and claim 39 was separately rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 7,181,654 to Ford et al. (hereafter “Ford”). With this response Applicant has amended claims 1, 39, 51, 70, 71, 72, 73, 74, canceled claims 43-44 and 47-48 and added new claims 77-80. With these changes Applicant respectfully submits that all of the pending claims are now in condition for allowance.

Rejection under 35 U.S.C. §112

Claim 39 was rejected as being indefinite because there was insufficient antecedent basis for the limitation “the received process parameter measurements.” The proper antecedent basis has been provided with the present amendment to claim 39. The offending phrase now reads “the received differential pressure measurements.” The antecedent basis for “the received differential pressure measurements,” can be found in the first element of the body of the claim which calls for “receiving measurements of a differential pressure across a catalyst valve in the fluid catalytic cracker.” With this change Applicant respectfully submits that

claim 39 is sufficiently definite to meet the requirements of 35 U.S.C. §112 second paragraph.

Rejections Under 35 U.S.C. §101

All of the claims pending in the application were rejected under 35 U.S.C. §101 as being directed to non-statutory matter. According to the Examiner the claims were not sufficiently tied to a particular machine or apparatus, nor did they transform a particular article to a different state or thing. With this response Applicant has amended all of the independent claims in a manner tying the various methods claimed therein to a particular machine or apparatus. Claim 1, for example, now calls for, among other things, “using a processor for determining a frequency component....,” “using a processor for determining a dominant system time constant,” “using a processor for determining one or more statistical measures.....,” and “using a processor for detecting an abnormal situation in the process plant based on the one or more statistical measures associated with the process parameter.” All of the other independent claims pending in the application have been amended in a similar manner. Applicant respectfully submits that with these changes all of the claims pending in the application are sufficiently tied to a particular machine or apparatus to meet the requirements of 35 U.S.C. §101 for reciting statutory subject matter.

Rejections under 35 U.S.C. §102(b) and 102(e)

Claims 39-41 and 72 were rejected under 35 U.S.C. §102(b) as being anticipated by Daw, and Claim 39 was separately rejected under 35 U.S.C. §102(e) as being anticipated by Ford. Dependant claims 43-44 which depend from claim 39 and dependent claims 47-48 which depend from claim 72, were indicated as being allowable if rewritten to overcome the

rejections under 35 U.S.C. §101 and to include all of the limitations of the base claims from which they depend and any intervening claims. With this amendment Applicant has amended independent claim 39 to include all of the features of claim 43. Furthermore, Applicant has added new claims 77-79. New claim 77 corresponds directly to independent claim 39 but also includes all of the features of claim 44. Dependent claims 78 and 79 correspond to dependent claims 40 and 41 depending from claim 39. Applicant has also amended claim 72 to include all of the features of dependent claim 47. Finally Applicant has added new claim 80. New claim 80 corresponds to independent claim 72 but includes the features of dependent claim 48. Claims 43-44 and 47-48 have been canceled. With these changes Applicant respectfully submits that all of the claims pending in the application now recite allowable subject matter.

Conclusion

With the present amendment Applicants respectfully submits that all of the pending claims are in condition for allowance. Accordingly, Applicant requests that the Examiner withdraw the rejections and issue a Notice of Allowance in the present case. However, if the Examiner has any questions about the present response, Examiner is encouraged to call applicants attorney at the number provided below.

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Respectfully submitted,

By /Jeffrey H. Canfield #38,404/

Jeffrey H. Canfield

Registration No.: 38,404

MARSHALL, GERSTEIN & BORUN LLP

233 S. Wacker Drive, Suite 6300

Sears Tower

Chicago, Illinois 60606-6357

(312) 474-6300

Attorney for Applicant